

ABSTRACT

A voltage-mode boosting write driver circuit (40) having a pair of voltage
5 boosting PMOS transistor sets (44, 46) coupled to a high current H-switch (42).
One set (44) of the boosting PMOS transistors correspondingly pulls output pin
HY high, while the other transistor set (46) correspondingly pulls output pin HX
high and the other output pin HY low thereby significantly improving the head
voltage swing, and also achieving a faster slew rate. Moreover, resistors (R3, R4)
10 of the H-switch are both matched to each other and impedance matched to a flex
cable (T0) interconnection impedance, which interconnection is coupled to the
thin film head, to thereby eliminate signal reflection such that the write current
(I_w) settles quickly with minimum ringing to achieve a high data rate. Moreover,
less power dissipation and smaller number of devices used are achieved by
15 making use of existing transient currents of the pre-driver emitter follower stage.